

putrid mass, and beginning to reproduce new tissue. Indeed, the rapidity with which the parts were restored to their normal condition was truly astonishing. In less than six weeks from the commencement of the formation of new tissue, the testes were enveloped in a new scrotum; the penis, urethra, and perineum were entirely restored.

By the latter part of August, Hall was well, and free from deformity. He could retain his water as well as he ever did, and void it *per vias naturales*, and with ease. He has not used a catheter since the 12th of August. When I saw Hall again, early in September, he was riding an unbroken mustang horse; and he assured me he was perfectly well, and had as much strength, and as perfect use of himself, as he had before the fall.

TUSKEGEE, ALA., July 12, 1854.

[*Note by the Editor.*—In connection with the above interesting case, we will refer to some observations which we published in the number of this Journal for Feb. 1837, on accidents of this character, their nature and mode of treatment, illustrated by a large number of cases.]

ART. XII.—*Case of Epilepsy, treated by Ligation of the Common Carotid Artery.* By JOSEPH B. BROWN, Assistant Surgeon U. S. Army.

“June 2, 1848.—Miss Elizabeth W., æt. 22, has been subject to attacks of epilepsy since her 17th year. Some four years before this time, she first felt a strange sensation in her right forearm; it gradually passed above the elbow, and now appears at the intersection of the omohyoideus by the trapezius, and precedes the convulsions as a true *aura*, being described by the patient as a stream of warm fluid issuing from this spot. Menstruation was normally established before the disease became confirmed. The patient is now constantly afflicted with convulsions, which vary in character and intensity; those occurring in the night being of the most violent convulsive character; while those during the day are generally less aggravated. Sometimes a week or two intervenes without any attack; but she states that she has had as many as twenty-four of the fits in the twenty-four hours. Her face bears constant marks of the violent injuries she receives from falls against articles of furniture, when prostrated, as she often is, without warning, while engaged at her usual avocations, or walking across the floor. She is remarkably intelligent, and of excellent physical development.

“Her attending physician, Dr. Z. Pitcher, of Detroit, despairing of affording her any relief from the ordinary means of medical treatment, which have been properly and perseveringly tried, has consulted with me as to the propriety of attempting a cure by a surgical operation. I saw the patient to-day, and finding no sign of disease external to the brain, to which the convulsions could be referred, agreed with Dr. P. as to the propriety of attempting to relieve her by applying a ligature to the common carotid artery of one side. *It was decided not to use chloroform*, as generally hazardous in operations of importance about the head, and for such a one as this, and in such a case, as particularly imprudent.

"5th. Operated to-day, assisted by my brother and Dr. Alfred Brush, Dr. Pitcher and some other medical gentlemen being present. The vessel upon the right side was selected, and tied *above the omohyoideus*, a slight enlargement of the thyroid gland interfering with the artery below. *No chloroform was used.* Pulsation immediately ceased in the temporal and facial arteries of the side, upon tightening the ligature, but no perceptible change in the feelings of the patient was experienced."

The above is an extract from my note-book, kept at the time. The relief afforded by the operation was immediate. The ligature came away on the twentieth day, long before which time pulsation was re-established in the right temporal. Constant service upon a remote frontier has until recently prevented me from hearing the subsequent history of the case. Dr. Pitcher reports (July, 1853) that "the aura has never returned, neither have the grave and convulsive forms of the disease; but within the past year, when exercise is omitted, and any unpleasant mental disturbance takes place at the same time, very slight returns of the *petit mal* occur, but never to occasion loss of consciousness. The health of the patient is now perfect. Her temper, which had been rendered irritable by the disease of her nervous centre, is very much improved, and her appreciation of existence greatly enhanced."

For more than *three years* she was exempt from seizure of any kind.

The history and statistics of ligation of the carotid have been made the subject of a valuable essay by Dr. Norris, of Philadelphia.¹ His tables show that this operation, though several times performed for cases of epilepsy, has never been successful for the cure, but all have recovered from the effects of the operation. He says that "the idea of curing epilepsy by tying the carotid seems to have been founded on false principles." It is certainly difficult to reason upon this matter, when the pathology of epilepsy, the species designated as *centric epilepsy* especially, is so imperfectly understood. Should it depend upon a functional derangement of the relation between the arterial and venous circulation within the head (as probably in the above case), a measure which would so materially diminish the force and volume of the blood sent to the brain as ligation of the carotid, would seem, if not expressly indicated, at least to demand a trial. It is true, the difficulty of diagnosing cases in which this derangement operates must ever exist; but the above case certainly shows that the most aggravated forms of the disease may arise from some such cause, and that mechanically checking the volume and force of the arterial blood poured into the brain may restore the balance and effect a cure. The operation has never proved fatal, though uniformly, till the present case, unsuccessful as a cure; but with the experience of this *one*, productive of so much benefit, restoring the patient from a state of existence too horrible to endure, to the comfort of health, it seems to me that, in proper cases, we should not be justified to abandon it entirely.

Note.—This case has been recently reported by Dr. P. in the *Peninsular Medical Journal*, but the report is evidently drawn up from recollection, as it contains several inaccuracies.

RINGGOLD BARRACKS, TEXAS, Jan. 28, 1854.

¹ Am. Journ. Med. Sciences, July, 1847.